

## MEMORANDUM

**Subject:** Limited Site Plan Review Narrative and Application Materials

**Project:** **The Cotting School  
Athletic Addition**

**Project No.** 18005.00

**Date:** 21 August 2019

**To:** Town of Lexington  
Planning Board

**By:** Megan Buczynski, PE  
Principal

**Delivery:** Hand Delivered

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Dear Planning Board Members,

On behalf of The Cotting School we are pleased to provide you with this Application for Limited Site Plan Review in regards to the School's proposal to install a gymnasium addition on the existing school building and related site improvements. Per the Zoning Bylaw Chapter 135 Sections 9.5.2.1 and 9.5.6 and Chapter 176 Section 9.4.1, the project is subject to Major Site Plan Review as the proposed expansion of the structure exceeds 5,000 sf. Per Zoning Bylaw Chapter 135 Section 9.5.6, the project is subject to the limited review requirements as it is an educational use.

### Project Overview

The Cotting School has served the Boston area since it's founding in 1893 with the goal "to enable students with special needs to achieve their highest learning potential and level of independence". Cotting's current campus has served this mission for over three decades but has not seen significant improvement since its construction in 1988. Their evolving adaptive physical education program and desire to provide all students with team sport opportunities necessitates this new indoor athletic addition. The new addition (approximately 25,355 sf) will include a regulation size high school basketball court, candlepin bowling lanes, a fitness center, a climbing wall, and new classroom space serving the visual and performing arts. The addition will be connected on two levels to the existing facility with accessible entrances at the upper and lower levels. Exterior improvements around and adjacent to the building include new ramps and walkways, paving of an existing gravel parking lot, installation of new subsurface stormwater detention/infiltration systems and associated infrastructure, and miscellaneous landscape improvements.



### Other Permitting

A portion of the proposed project is located within the buffer zone of a bordering vegetated wetland that is adjacent to the project site. Therefore, the project is subject to both the Massachusetts Wetlands Protection Act and the Town of Lexington Wetlands Protection Code. A Notice of Intent has been prepared for the project and was submitted to the Lexington Conservation Commission on August 13, 2019. The submission package included drainage design and calculations that conform to the Massachusetts Stormwater Standards and the Lexington Wetlands Protection Rules and accompanying plans and supporting information.

### Applicable Zoning Sections

The Cotting School properties are located within the RO – One Family Dwelling zone per the 2015 Zoning Map and Cotting is considered an Institutional Use per Chapter 135 Section 3.4 – Table 1. Per Item B.1.03, Educational Use is allowed in the RO district, but requires Limited Site Plan Review. As the project is for expansion of a floor area greater than 5,000 sf, Major Site Plan regulations will be followed, but per Section 9.5.6 shall only address the following areas:

- |                                  |   |
|----------------------------------|---|
| a. Bulk and height of structures | Ch. 135 S. 4.1.1 & 4.3                      |
| b. Yard sizes and setbacks;      | Ch. 135 S. 4.1.1 & 4.2                      |
| c. Lot area;                     | Ch. 135 S. 4.1.1 & 4.2                      |
| d. Open space;                   | Ch. 135 S. 5.3, 5.4 & 9.5.5; Ch. 176 S. 9.6 |
| e. Parking;                      | Ch. 135 S. 5.1, 8.7                         |
| f. Building coverage             | Ch. 135 S. 4.1.1 & 4.2                      |

In addition to these items, this submission will show compliance with the applicable submission requirements sections within Chapter 176 Planning Board Zoning Regulations Sections 5.0 (Submission Materials), 9.4.2 (Required Major Site Plan Submittals), 9.5 (Design Standards), and 9.6 (Site Development Standards).

### General Site Plan Review Information

The Cotting School Campus spans nine contiguous parcels in Lexington. These parcels are 10-40, 10-41A, 10-42, 10-43, 10-46, 10-47, and 11-33, 11-31, and 11-26B. The proposed work will be located on parcels 10-41A, 10-46, and 10-47. For the purposes of dimensional regulations and abutter notification, and per discussions with the Planning Department, the contiguous edge of the property lines surrounding the entirety of the parcels will be used for consideration of setbacks and yards.



**Bulk and Height of Structures; Yard Sizes and Setbacks; Lot Area; and Building Coverage  
(Zoning Bylaw Chapter 135 Sections 4.1.1, 4.2, and 4.3)**

The following are the Dimensional Controls applicable to the Institutional Buildings in the RO Zone per Table 2 - Schedule of Dimensional Controls and the quantities associated with the proposed project and lots.

	Min. Lot Area (sf)	Min. Lot Frontage (ft)	Min. Front Yard in feet	Min. Side yard in feet	Min. Rear yard in feet	Max. Nonresidential FAR	Maximum Site Coverage	Max Height	
								Stories	Feet
RO	30,000	150	30	15', but buildings shall be setback 25' or Dist. Eq. to height of building, whichever is greater	15', but buildings shall be setback 25' or Dist. Eq. to height of building, whichever is greater	NR (g)	15% (e)	2.5	40
Proposed	776,675	580	meets	meets	meets	20.03%	n/a	2	39.5

e. Applicable only to uses permitted by special permit.

g. For institutional uses (see Table 1), the maximum floor area ratio shall be 0.25.

As shown in the above table and on the proposed plans, the project meets the Dimensional Standards set forth in Ch. 135 S. 4.1, 4.2 & 4.3. The proposed project is outside of all setback areas and the proposed building addition is farther than the height of the building from the side and rear property boundaries. As shown on the adjacent table, the FAR is below the maximum value. The height of the proposed addition is less than the maximum value and per Section 4.3.3 the area of the proposed gymnasium is within an area of slopes on the site and therefore that area of building is considered a portion of segmented building.

MAXIMUM NONRESIDENTIAL FAR CALCULATION

EXISTING	Parcel	Lot (acres)	Lot (sf)	Building	
				GFA (sf)	NFA (sf)
	11-26B	0.52	22,651	-	-
	11-31	2.17	94,525	2,762	2,210
	11-33	3.75	163,350	3,206	2,565
	10-46	1.95	84,942	-	-
	10-47	0.99	43,124	-	-
	10-41a	7.1	309,276	104,774	83,819
	10-43	0.34	14,810	10,026	8,021
	10-42	0.34	14,810	5,500	4,400
	10-40	0.67	29,185	2,295	1,836
	TOTAL LOT AREA		776,675		
	Wetlands		174,999		
	Proposed Gym Addition			22,068	17,654
DEVELOPABLE AREA:			601,676		
TOTAL NFA:				120,505	
FAR				20.03%	

FAR = NFA / DEVELOPABLE SITE AREA

NFA = 80% \* GFA

DEVELOPABLE AREA = LOT AREA - WETLAND, POND, LAND UNDER WATER

GFA = SUM OF HORIZONTAL AREAS OF A BUILDING\*

\* Taken from Town Assessor's information where provided, otherwise from survey information



## Open Space

### (Zoning Bylaw Chapter 135 Sections 5.3, 5.4 & 9.5.5 and Chapter 176 Section 9.6)

The applicability of Ch. 135 S. 5.3 Landscaping, Transition and Screening in regards to this project is to preserve and/or improve the visual and environmental character of a neighborhood and of Lexington per item 5.3.1.3. As shown on the plans the proposed addition is set at the back of the existing main campus and well beyond all required zoning setback lines. The following shows compliance with this section.

- 5.3.3 A Landscaping Plan has been provided within the plan set showing the proposed plantings around the proposed building area.
- 5.3.4-10 The existing building and landscape will serve as the transition area for the addition. There is a significant amount of mature forest growth between the addition and adjacent parcels, which already serves as this transition area.

It is assumed that Outdoor Lighting may also fall into Open Space for Limited Site Plan Review as described in Ch. 135 S. 5.4. The following shows compliance with this section.

- 5.4.3 A photometric plan is included within the Plan Set to show exterior light levels at the project site. In addition, cut sheets have been provided of the proposed lighting fixtures within this report. These are the Solana SL 730 20' tall lights at the parking area and the Solana SL 760 12' poles at the pedestrian pathway areas.
- 5.4.4.1 Each lamp type does emit greater than 2,000 lumens, but is full cutoff and does not emit light above the horizontal plane.
- 5.4.4.2 As shown on the Photometric Plan there is no light spill from the proposed lighting onto adjacent non-Cotting properties.
- 5.4.5 The proposed lamps are LED fixtures with a minimum CRI of 70, which is greater than the minimum noted of 50 in this section.
- 5.4.6 Cotting understands that lighting shall not be illuminated between the hours of 11pm and 6am per this section.

To show compliance with Open Space requirements described within Chapter 176 Section 9.6 Site Development Standards, please refer to the attached Site Development Standards Checklist.



## Parking

### (Zoning Bylaw Chapter 135 Sections 5.1, 8.7)

The Cotting School is a specialized school with the goal "to enable students with special needs to achieve their highest learning potential and level of independence". In regards to how the school functions in regards to parking requirements, the use varies somewhere between elementary school (2 per classroom) and a technical school (as needed). For the purposes of parking counts, we have limited the parking counts to include the spots located directly on and adjacent to the 435, 447, 451, and 453 Concord Ave properties. Parking spots associated with the 489 and 497 Concord Avenue have not been included as part of this analysis.

The current campus has 152 parking spots. As part of the project due to some reorganizing of the existing parking lot with new curb cuts, the proposed lot will have a total of 149 spaces. The Main Building needs to provide parking for teachers; teacher's aides; support departments including Occupational Therapy, Physical Therapy, Speech-Language-Pathology, and Nursing; facilities/maintenance staff; and administration staff. Additional administration staff is located within the three other adjacent buildings on the main campus and spaces are provided for the office space associated with those buildings. The following chart shows how we believe it may be appropriate to break down the parking needs for the campus per Section 5.1.4:

Main Building	Requirement	Existing School Building	Existing Required Spaces	Proposed School Building	Proposed Required Spaces
Elementary, Secondary School	2 per classroom	23 classrooms	46 spaces	28 classrooms***	56 spaces
Office	1 per 250 sf	7,843 sf*	31 spaces	8,091 sf*	32 spaces
Library	1 per 600 sf	1,934 sf	3 spaces	1,934 sf	3 spaces
Indoor Athletic and Exercise Facilities	6 per 1,000 sf	2,311 sf**	14 spaces	3,630 sf****	22 spaces
Auditorium	1 per 6 seats	273 seats	46 spaces	273 seats	46 spaces
<b>Dr. Carl W. Morse Building</b>					
80% of Living Space (Offices)	1 per 250 sf	4,286 sf	17 spaces	4,286 sf	17 spaces
<b>Carmichael House</b>					
80% of Living Space (Offices)	1 per 250 sf	2,261 sf	9 spaces	2,261 sf	9 spaces
<b>Waypoint Adventure Building</b>					
80% of Living Space (Offices)	1 per 250 sf	1,548 sf	6 spaces	1,548 sf	6 spaces
		<b>Total Spaces Required</b>	<b>172</b>	<b>Total Spaces Required</b>	<b>191</b>
		<b>Total Spaces on Campus</b>	<b>152</b>	<b>Total Spaces on Campus</b>	<b>149</b>

\*Includes Medical Offices

\*\*Includes Fitness Room and OT/PT Room

\*\*\*\*Includes Climbing Wall

As you can see based on these calculations the campus is less forty-two (42) parking spaces in the proposed conditions. However, it should be noted that the spaces included for the auditorium (46 spaces) are likely to be greater than needed on a typical day, although it is recognized that parking is close to capacity within the Main Campus on a typical day. In the existing conditions if you do not count the auditorium space count, the required space count is 130, which seems appropriate based on the car count on a typical day. Cars associated with



activities in the auditorium would typically be after school hours when families may be attending an event, but many of the typical school staff may not be in attendance. In addition, Cotting is able to manage parking on the current campus with the existing 152 parking spaces. The proposed addition will not "add" a need for additional parking as it is replacing the undersized existing gym in order to provide more recreational space for its students. Cotting is not adding students to their current population as a result of this addition. From year to year the student population fluctuates between 100-125 students and Cotting's long-term plan is to stay within this range. As such, additional parking needs are not anticipated as the personnel driving to the school will remain in line with the current numbers. It should be noted that Cotting does encourage and provide incentives to their staff to engage in ride-sharing opportunities.

For the same reasons listed above, the proposed addition does not require changes to the loading bays on campus.

Construction will be on going though out the school year. As shown on the attached Construction Management Plan, approximately 20-25 parking spaces will be temporarily displaced during construction of the addition. Cotting has relationships with the Senior Living Facility across the street from the Main Campus as well as the nearby Elks Lodge and in the past has coordinated using some of that parking and shuttling staff over to the Main Campus. Cotting is continuing to work out these details with those entities and will provide a final agreed upon plan to the Planning Board for review.

#### Planning Board Zoning Regulations Chapter 176 Section 5.0

The following is a breakdown of the requirements listed in Ch. 176 S. 5.0 to show location and/or compliance of the requirement.

- 5.1 Plan Set shows compliance with regulations set forth in this section.
- 5.2 All items found within Plan Set
- 5.3.1 The Table of Development Data is shown here.
- 5.3.2 The Hydrologic and Drainage Analysis can be found within the Stormwater Report and is being reviewed through the Conservation NOI submission.
- 5.3.3 Soil Information can be found within the Stormwater Report and is being reviewed through the Conservation NOI submission.

TABLE OF DEVELOPMENTAL DATA	
Total Land Area (sf)	776,675
Area of vegetated wetland (sf)	174,999
Developable site area (sf)	601,676
Length of street and area in street right-of-way (ft)	n/a
Area in common open space (sf)	n/a
Area and percentage of site coverage of buildings	n/a per (e) of Dim. Controls Table
Area covered with impervious surface	
Impervious surface ratio	
GFA of Buildings	150,631
NFA of Buildings	120,505
Density of dwelling units	n/a
Number of off-street parking spaces and loading bays	149*
*Note the parking spaces included this count are the ones located within parcels 10-40, 10-41a, 10-43, and 10-46; parking associated with the other lots have not	



- 5.3.4 Traffic Study – not applicable as the proposed addition will not change the traffic count during the course of a typical day.
- 5.4.1 Deed, attached to application
- 5.4.2 Site Development Conditions, refer to Plan Set and attached Site Development Standards Checklist.
- 5.4.3 Building Design, refer to Plans for bulk and height of structure information.
- 5.4.4 Off-Site Traffic Improvements, not applicable as the proposed addition will not change the traffic count during the course of a typical day.
- 5.4.5 Off-Site Town Facilities and Services, not applicable to this review as the proposed addition will not change off-site facilities and services.
- 5.4.6 Use of Buildings, not applicable to this review (use is for educational purposes).
- 5.4.7 Housing, not applicable.
- 5.4.8 Historical or Architectural Preservation, not applicable.

#### **Planning Board Zoning Regulations Chapter 176 Section 9.4.2**

The following is a breakdown of the requirements listed in Ch. 176 S. 9.4.2 to show location and/or compliance of the requirement.

- 9.4.2.1 Site Development Plan, refer to Plan Set.
- 9.4.2.2 Landscaping Plan, refer to Plan Set.
- 9.4.2.3 Lighting Plan, refer to Plan Set.
- 9.4.2.4 PTDM, not applicable as there will be no increase in traffic to the site as a result of addition.
- 9.4.2.5 Proposal for mitigating measures, not applicable as the addition will not increase capacity in Town facilities and services.
- 9.4.2.6 Checklist of Section 9.5 Design Standards, see attached.
- 9.4.2.7 Any items on LEED Core and Shell Checklist, not applicable to this review.
- 9.4.2.8 Order of Conditions from Conservation – in progress, we understand that Planning Board will not close until that is issued. If a full copy of the Notice of Intent and accompanying materials is required, a copy can be submitted (we were just trying to save paper as this has been filed with the Conservation Commission already).

#### **Closing**

We hope that the submitted information is appropriate and considered complete for the Limited Site Plan Review Application as it appears to be the first of this type of application within the Town. We look forward to meeting with the Development Review Team on 9/4/2019 following our first Conservation Commission hearing on 9/3/2019 and meeting with the Planning Board to discuss this submission on 9/25/2019.



If you have any questions on the enclosed documentation please do not hesitate to contact me directly at (781) 355-7040 or by email at meb@activitas.com.

Respectfully,

ACTIVITAS



**Megan Buczynski, PE**  
Principal  
meb@activitas.com

Attachments: Design Standards Checklist  
Site Development Standards Checklist  
Major Site Plan Review Application (Form B)  
Permission to Bill  
Copy of Check for Application Fee - \$1,500  
Copy of Deed  
Abutter's Information  
Construction Management Logistics Plan  
Lighting Fixture Information  
Plan Plans (separate attachment)



Chapter 176 Section 9.5 Design Standards Checklist

Section	Item	Requirement	Compliance or Waiver Request
9.5.1	Lighting	Lighting standards are the same as those in Sections 5.4.4 through 5.4.6 of the Zoning Bylaw. However, the applicant must also demonstrate that internal lighting does not cause overspill onto abutting properties, the street, or into the night sky.	Lighting is proposed at the parking area to replace existing lighting in that location and along new pathways leading up to the addition. As described in the Site Plan Review Narrative, the proposed lighting meets the intent of the Zoning Bylaw.
9.5.2	Signs	The signage standards are the same as Section 5.2.8 of the Bylaw.	N/A as no additional signage is intended at the site.
9.5.3	Noise	Noise standards are the same as § 80-4 of the Code of Lexington, as may be amended.	The proposed addition will not change noise patterns at the site, with the exception of during construction which will be a temporary condition.
9.5.4	Landscaping	Landscaping standards are the same as those of Sections 135-5.3.4 through 5.3.10, 5.3.13, 5.3.14 and 5.1.13.9 of Zoning Bylaw, as may be amended.	Refer to the Plan set for landscaping plans showing compliance with the Bylaw.
9.5.5	Stormwater Management	Stormwater management standards are the same as those per Chapter 114 of the Code of Lexington and the rules and regulations of the Board of Health, as may be amended. In addition, all stormwater management facilities must comply with the Department of Environmental Protection's Stormwater Management Regulations, 314 CMR 21.00 et seq., as may be amended.	A full Stormwater Report showing compliance with the MA Stormwater Standards and all local requirements including the Conservation Commission's requirements which are the most stringent. The Stormwater Report and associated Design are being reviewed by Engineering under the Notice of Intent filing with the Conservation Commission.
9.5.6	Aesthetics	In determining the appropriateness of buildings, design elements of proposed buildings must be evaluated in relation to existing buildings adjacent or surrounding buildings. The Planning Board may not consider interior arrangements. The back and sides of each building must be given architectural care particularly if available for view by the public.	Refer to the plans to show compliance with appropriateness of the proposed buildings in the setting of the campus and location within the neighborhood.



### Chapter 176 Section 9.6 Site Development Standards Checklist

Section	Item	Requirement	Compliance or Waiver Request
9.6.1	Land Disturbance	Site and building design must preserve natural topography outside of the development footprint to reduce unnecessary land disturbance and to preserve natural drainage on the site.	Refer to plans showing all attempts to minimize unnecessary land disturbance; majority of work is within previously disturbed areas.
9.6.2	Clearing for Utility Trenching	Clearing for utility trenching must be limited to the minimum area necessary to maneuver a backhoe or other construction equipment. Roots should be cut cleanly rather than pulled or ripped out during utility trenching. Tunneling for utility installation should be used wherever feasible to protect root systems of trees.	As shown on the plans, all attempts are made to limit affects on trees for utility installation.
9.6.3	New Sites	Placement of new buildings, structures, or parking facilities must blend with the natural landscape. New building sites must be directed away from the crest of hills, and foundations must be constructed to reflect the natural terrain. Sites must be designed in such a way as to avoid impacts to rare and endangered species and wildlife habitat on a site, and to maintain contiguous forested areas.	N/A as project is for an addition on an existing site. However, the siting of the building into the elevations associated with the hill are shown within the Plan Set.
9.6.4	Archeological or Historic Resources	The proposed development must be consistent with the applicable standards of the Historical Commission and the Massachusetts Historical Commission.	N/A
9.6.5	Preservation of Existing Vegetation	Priority must be given to the preservation of existing stands of trees, trees at site perimeter, contiguous vegetation with adjacent sites (particularly existing sites protected through conservation restrictions), and specimen trees. Understory vegetation beneath the dripline of preserved trees must be retained in an undisturbed state. During clearing and construction activities, all vegetation to be retained must be surrounded by temporary protective fencing or other measures before any clearing or grading occurs, and maintained until all construction work is completed and the site is cleaned up. Barriers must be large enough to encompass the essential root zone of all vegetation to be protected. All vegetation inside the protective fencing must be retained in an undisturbed state.	As shown within the Plan Set, the majority of the proposed work takes place in previously disturbed areas. Refer to Plan Set for further information.
9.6.6	Location of Construction Activities	To minimize the clearing and grading on a site associated with construction activities, such as parking of construction vehicles, offices/trailers, stockpiling of equipment/materials, such activities may be limited to areas already planned for permanent structures. Topsoil may not be stockpiled in areas of protected trees, and wetlands or their vegetated buffers.	Refer to Plan Set to show compliance with this requirement.
9.6.7	Limit of Clearing	Development envelopes for structures, driveways, wastewater disposal, lawn areas, and utility work must be designated to limit clearing and grading. Clearing of vegetation and alteration of topography must be replicated with native vegetation planted in disturbed areas.	Refer to Plan Set to show compliance with this requirement.
9.6.8	Removal of Invasive Species	The removal of invasive species will be required except when their removal would lead to unnecessary or unneeded clearing, such as a large stand of mature trees.	Limited planting removal with the exception of the hillside and the area of drain line installation will require clearing activities. Cotting will review invasives in further detail as needed.



9.6.9	Finished Grade	Finished grades in disturbed areas should be limited to no greater than a 3:1 slope (rise over run), while preserving, matching, or blending with the natural contours and undulations of the land to the greatest extent possible. Finished grade must be no higher than the trunk flares of trees to be retained unless tree wells are used.	Refer to Plan Set to show compliance with this requirement.
9.6.10	Phasing of Development	The extent of a site exposed at any one time through phasing of construction operations must be limited. Effective sequencing must occur inside the boundaries of natural drainage areas.	No phasing is anticipated for this project.
9.6.11	Revegetation	Proper revegetation techniques must be employed during construction using native plant species, proper seedbed preparation, fertilizer and mulching to protect germinating plants. Revegetation must occur on cleared sites in the first planting season appropriate to the selected plant species. Proposed landscaping must include native and drought-tolerant species and prohibit invasive or non-native plants.	Refer to Plan Set to show compliance with this requirement.
9.6.12	Topsoil	A minimum of six inches of topsoil must be placed on all disturbed surfaces, which are proposed to be planted.	Refer to Plan Set to show compliance with this requirement.
9.6.13	Irrigation	In general, the need for irrigation must be avoided by appropriate planting. The Planning Board may require that water to irrigation must be provided by an on-site well, cisterns, or other acceptable and feasible method.	No irrigation is anticipated on this project. Planting using native species to extent practicable is shown on the Plan Set.